

## ABSTRACT OF THE DISCLOSURE

The invention includes ALD-type methods in which two or more different precursors are provided within a chamber at different and substantially non-overlapping times relative to one another to form a material, and the material is thereafter exposed to one or more reactants to change a composition of the material. In particular aspects, the precursors utilized to form the material are metal-containing precursors, and the reactant utilized to change the composition of the material comprises oxygen, silicon, and/or nitrogen.